Polynomial Factoring practice (version 14)

1. The quadratic formula says if $ax^2 + bx + c = 0$ then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Use the quadratic formula to solve the following equation.

$$x^2 - 6x + 33 = 0$$

Simplify your answer(s) as much as possible.

2. Express the product of 4-7i and -8-5i in standard form (a+bi).

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3. Write function $f(x) = x^3 + x^2 - 26x + 24$ in factored form. I'll give you a hint: one factor is (x+6).

4. Polynomial p is defined below in factored form.

$$p(x) = (x+7)^2 \cdot (x+2) \cdot (x-2)^2$$

Sketch a graph of polynomial y = p(x).

